

Web-based Tutorial Training for a Regional Network of Clinical Providers

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Background. The availability and quality of training may determine the difference between success and failure when introducing a new clinical information systems application¹. During this transition to the electronic health record, applications are introduced or enhanced on a frequent basis. The geographic distribution and the varied schedules of providers in any health system combine to make synchronizing the time and place of a teacher and students in a classroom nearly impossible. Accordingly, we have developed an asynchronous approach to training that makes use of Web-based tutorials.

User training and education have been identified as "Critical Success Factors" for health management information systems¹. Training healthcare professionals in the use of computer based patient record applications is not an easy task due to characteristics such as shift work, moderate to high employee turnover (especially in an university hospital setting), and the difficulty in obtaining the commitment of clinicians to attend group training sessions of any length. At the UIHC, an 871 bed teaching facility, training had traditionally been done by synchronizing the time and location of a tutor and students in classrooms or at the job location. Additional user training challenges arose due to the UIHC expansion of its network of clinics into distantly located community sites. All of these issues highlighted the need for an innovative and efficient method for training large numbers of users in various locations and at various times.

The Web Solution. In researching possible strategies, support was found in the literature for computer assisted training. This approach offered many benefits, however it also required high development and deployment resources. Liking the on-line training approach, but looking for a less resource intense alternative, the Web was chosen as an alternative platform to classroom training. The Web offers the same advantages as traditional on-line training, with additional development and

deployment advantages. Development of interactive, Web-based tutorials began, planning to assist in the task of training hospital staff in the use of various Computer-Based Patient Record (CBPR) applications. The goal was to provide an alternative to classroom training which the clinician could access from any computer at any time.

System. The CAI design model presented by Hannafin and Peck² was used as the model for the web tutorial development. The model consists of four phases: needs assessment, design, development and implementation, and evaluation and revision. Learner needs were identified and story-boards for the various tutorials were developed. Several tools for web page development were reviewed. The tool chosen provides a graphical WYSIWYG (what you see is what you get) format. The Web tutorial also maintains a user database through the submission of electronic evaluation forms following the completion of the tutorial. This user database provides the ability to track and subsequently evaluate the performance of those trained via the asynchronous tutorials.

Summary. The challenges of training clinicians in the use of a computer based patient record are many. The flexibility of an asynchronous approach to training using the Web as the delivery tool offers exciting possibilities in creating effective, easily accessible and user friendly training.

References

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